

Please cancel claims 7-9.

Please add the following new claim:

--10. The high-frequency coil of claim 6, wherein the gold layer has a thickness of .3 to 5 μm .--

REMARKS

Applicant thanks the Examiner for acknowledging receipt of Applicant's foreign priority documents that have been submitted pursuant to 35 U.S.C. §119.

In this amendment, Applicant has canceled claims 7-9. Applicant submits that in addition to claims 1, 3 and 5, claims 2, 4 and 6 should still remain in the present application because Applicant submits that claim 1, which is a generic claim, remains allowable over the art of record. Accordingly, Applicant submits that the Examiner should consider all claims 1-6, which are currently in the application.

Applicant respectfully requests reconsideration of the prior art rejections set forth by the Examiner under 35 U.S.C. §§102 and 103. Applicant respectfully submits that the prior art references of record, whether considered alone, or in combination, fail to either teach or suggest Applicant's presently claimed invention.

Applicant notes that claim 1, the only independent claim, has been modified to further specify that side surfaces of the coil have substantially vertical walls. This is a significant aspect of Applicant's invention which is neither disclosed nor suggested by the art cited by the Examiner. Furthermore, dependent claim 2 alternately defines the invention and further modifies claim 1 by requiring that the coil has portions which have a gap between a bottom surface of the coil and the substrate. Applicant submits that claims 1 and 2 as well as the remaining dependent claims in the application are allowable over the art of record.

In that regard, Applicant notes that the presently claimed invention is directed to a high-frequency coil device having a spirally-shaped coil. The specification notes that in prior art designs, because the copper layer 32 is formed by selectively etching a copper layer 32 with a resist pattern 34 as a mask, the section of the coil 32A has a trapezoidal shape having an inclined side surfaces as shown in Figure 14 and Figure 10C. As a result of these inherent characteristics of the prior art designs, dispersion occurs in the sectional area and the dispersion of the coil results in intensification of the inductance. Thus, it has been difficult for conventional high-frequency coils to be manufactured for gigahertz ranges of operation which require small dispersion in the coil inductance. See, Applicant's specification at page 4.

Applicant has identified new and improved ways to manufacture the coil which do not suffer from the shortcomings of the prior art. More specifically, Applicant teaches a technique in the present specification which provides substantially vertical sidewalls for the coil member by plating, preferably multiple metal layers, on a temporary base layer that is removed. See, for example, Applicant's specification at page 10 in the first full paragraph which describes the side surfaces of the laminate structure as being substantially vertical. Applicant respectfully submits that no reference of record provides any teaching or suggestion regarding the formation of such a coil on a temporary base that it removed in order to provide substantially vertical walls as now claimed. Furthermore, there is no teaching or suggestion in the art regarding the formation of a high-frequency coil wherein the coil has portions which have a gap between a bottom surface of the coil and a substrate. See, for example, claim 2.

The Examiner has asserted that it would have been a mere obvious variation to form the coil member by plating, however, this allegation is conclusory and there is simply no

support whatsoever, specifically for the unique plating technique that is disclosed and claimed in the present application.

Claim 6 further modifies the coil of claim 1 to indicate that the plating layer is a multi-layer structure in which a nickel plating layer and a gold plating layer are laminated. As described in the specification, the nickel plating layer advantageously provides a diffusion barrier to both the copper and the gold metals that are also used in the manufacturing process. There is simply no teaching or suggestion regarding this advance in the art as well.

In light of the foregoing, Applicant submits that claim 1 is allowable and the remaining claims are also allowable over the art of record and should be considered in the instant application in light of the allowability of independent claim 1.

Accordingly, for the foregoing reasons, because the prior art of record fails to teach or suggest the claimed invention, Applicant respectfully requests that the Examiner now allow all claims in the application.

Respectfully submitted,

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